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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sehat Sutardja

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EXAMINER

PATEL, RAJNIKANT B

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/693,787	Applicant(s) SUTARDJA, SEHAT	
	Examiner RAJNIKANT B. PATEL	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23, 75-97, 155-172, 187, 188 and 240-243 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 75-97, 155-172, 187, 188 and 240-243 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11 September 2008 have been fully considered but they are not persuasive. Because in Remark dated 11 September 2008 applicant discussing about figure 8 of applied art of Wong while in claim rejection examiner point out figure 5, Further the coupled inductors having a coefficient of coupling equal to one is an inherent property of coupled inductor and also well known in the art. Applied art of Wong discloses the utilization of the coupled inductor and circuit meets the structure limitations. Wong's reference discloses N phases operating in phase so provide equal current sharing and equal phase angles.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong (U.S. Patent # 6,084,790).

Wong discloses claimed subject matters a coupled inductor regulator (1 and 5-13), including at least two conduction switches (figure 5, item P2(1-N)), at least two inductors (figure 5, item L1-L2) wound on a common core (column 8, line 1-20), at least two freewheeling switches (figure 5, item P1(1) and P2(2) and a duty cycle 50% (column 9, line 30-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-23, 76-97, 187-188, 240-243 rejected under 35 U.S.C. 103(a) as being unpatentable over Wong (U.S. Patent # 6,084,790) in combinations with Morean (U.S. Patent # 5,821,832) and Wittenbreder, Jr. (U.S. Patent # 5,402,329) and further in combinations with Riggio et al. (U.S. Patent # 6,493,242).

Wong discloses claimed subject matters as explained in the claims 1 and 75, above, except the utilization of the technique for the coefficient of coupling approximately equal to one, a buck topology and the drive signal synchronous to clock signals, a fly back topology, a boost topology, a voltage ratio. Morean teaches the utilization of the similar technique for the coefficient of coupling approximately equal to one (column 3, line 55- 65+), Wittenbreder, Jr. teaches the utilization of the similar technique for a buck topology (column 3, line 55-70) and Riggio et al. teaches the utilization of the similar technique a drive circuit has a fly back topology (column 11, line 35-50), a boost topology (column 7, line 25-40) a voltage ratio (column 22, line 15-35). It would have been obvious one having ordinary skill in the art at the time the invention was made to modify Wong's voltage regulator by utilizing the technique taught by Morean, Wittenbreder, Jr. and Riggio et al. for the purpose of increase the efficiency of the voltage regulator circuit.

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6. Claims 155-172 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong (U.S. Patent # 6,084,790) in combination with Morean (U.S. Patent # 5,821,832) and Wittenbreder, Jr. (U.S. Patent # 5,402,329), and further in combination with Riggio et al. (U.S. patent # 6,493,242) and A.F. Podell (U.S. Patent # 3,529,233).

Wong in combination with Riggio et al. disclose the claimed subject matters as explained in the claims 2-23,76-97,187-188,240-243 above, except the utilization of the a lattice network. A.F. Podell teaches the utilization of the technique for a lattice network (column 1, line 55-70). It would have been obvious one having ordinary skill in the art at the time the invention made to modify Wong in combination with Morean and Wittenbreder, Jr. and further in combination with Riggio et al.'s regulating circuit by utilizing the technique taught by A. F. Podell for the purpose providing a balanced input and one pole phase shifting.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJNIKANT B. PATEL whose telephone number is (571)272-2082. The examiner can normally be reached on M-Th 7-5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2082. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RAJNIKANT B. PATEL/
Primary Examiner, Art Unit 2838
